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CONFIRMATION NO. 7035

SERIAL NUMBER 09/974,759	FILING OR 371(c) DATE 10/09/2001 RULE	CLASS 345	GROUP ART UNIT 2675	ATTORNEY DOCKET NO. IMM142
APPLICANTS Stephen D. Rank, San Jose, CA;				
** CONTINUING DATA *****				
** FOREIGN APPLICATIONS *****				
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 11/29/2001				
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after met Allowance		STATE OR COUNTRY CA	SHEETS DRAWING 5	TOTAL CLAIMS 28
Verified and Acknowledged Examiner's Signature _____ Initials _____			INDEPENDENT CLAIMS 4	
ADDRESS 022903				
TITLE HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM COMPUTER DEVICES				
FILING FEE RECEIVED 1356	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	

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Attorney Docket No. IMMR-003/00US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of **Stephen D. RANK**

Serial No.: 09/974,759

Examiner: Paul A. Bell

Confirmation No.: 7035

Art Unit: 2675

Filed: October 9, 2001

For: **HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM
COMPUTER DEVICES**

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2011 South Clark Place
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**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)**

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56,

Applicant(s) hereby submits the following information in conformance with 37 C.F.R.

§§1.97 and 1.98.

- ☒ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is included in electronic format on the enclosed CD-Rom.
- ☐ No copies of the publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. ___ to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.
- ☐ Publication(s) ___ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to ___ application serial no. ___ and mailed on ___.

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- ☐ Enclosed is a copy of a non-English publication(s) _____. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).
- ☐ Enclosed is a copy of a non-English publication(s) _____. English language publication ____ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) ____ for which an English translation is not available.
- ☐ Enclosed is an English translation of non-English publication(s) ____ cited in the attached Form PTO/SB/08A.
- ☐ Enclosed is a copy of pending patent Application Serial No. _____.

This Information Disclosure Statement is filed within any one of the following time periods:

- ☐ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
- ☐ before the mailing date of a first office action on the merits; or
- ☒ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

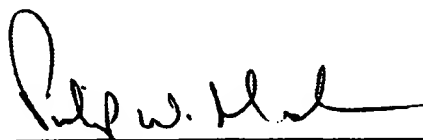
It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: June 3, 2004

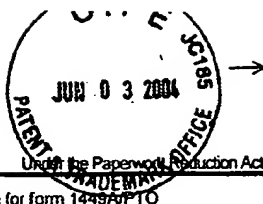
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Respectfully submitted,
COOLEY GODWARD LLP

By:



Philip W. Marsh
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PTO/SB/08A (10-01)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	09/974,759
Filing Date	October 9, 2001
First Named Inventor	Stephen D. Rank
Art Unit	2675
Examiner Name	Paul A. Bell
Attorney Docket Number	IMMR003/00US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	A1	6,422,941	7/23/2002	Thomer et al.	
	A2	6,160,489	12/12/2000	Perry et al.	
	A3	6,111,577	8/29/2000	Zilles et al.	
	A4	5,690,582	11/25/1997	Ulrich et al.	
	A5	5,575,761	11/19/1998	Hajianpour	
	A6	5,437,607	8/1/1995	Taylor	
	A7	5,436,622	7/25/1995	Gutman et al.	
	A8	5,283,970	2/8/1994	Aigner	
	A9	5,186,695	2/16/1993	Mangseth et al.	
	A10	5,175,459	12/29/1992	Daniel et al.	
	A11	5,165,697	11/24/1992	Johnson	
	A12	5,022,384	6/11/1991	Freels	
	A13	4,885,565	12/5/1989	Embach	
	A14	4,484,191	11/20/1984	Vavra	
	A15	4,464,117	8/7/1984	Foerst	
	A16	4,333,070	6/1/1982	Barnes	
	A17	4,262,549	4/21/1981	Schwellenbach	
	A18	4,127,752	11/26/1978	Lowthorp	
	A19	2,972,140	2/14/1961	Hirsch	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
	B1	JP	H2-185278		7/19/1990	Taito Corporation	
	B2	JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
	B3	JP	H7-24147		1/27/1995	Sega Corporation	
	B4	JP	H5-192449		8/3/1993	Taito Corporation	
	B5						

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Signature

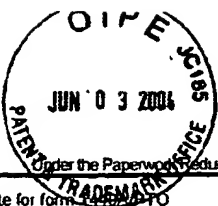
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¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **2** of **3**

Complete if Known

Application Number **09/974,759**
Filing Date **October 9, 2001**
First Named Inventor **Stephen D. Rank**
Art Unit **2675**
Examiner Name **Paul A. Bell**
Attorney Docket Number **IMMR003/00US**

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C1	PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
	C2	CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
	C3	WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
	C4	BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
	C5	JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
	C6	KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," PRESENCE, 4(4):387-402, Harvard Univ., 1995.
	C7	AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
	C8	EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, <i>Dynamic Systems and Control</i> , Volume 1, ASME 1994.
	C9	GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
	C10	PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
	C111	"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
	C12	OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
	C13	KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
	C14	LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
	C15	"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

Examiner
Signature

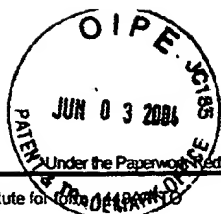
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3 of 3

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Application Number	09/974,759
Filing Date	October 9, 2001
First Named Inventor	Stephen D. Rank
Art Unit	2675
Examiner Name	Paul A. Bell
Attorney Docket Number	IMMR003/00US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C16	"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
	C17	SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994
	C18	YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992
	C19	NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.
	C20	ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance in Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.

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Examiner Signature	Date Considered
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Attorney Docket No. IMMR-003/00US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of **Stephen D. RANK**

Serial No.: 09/974,759

Examiner: Paul A. Bell

Confirmation No.: 7035

Art Unit: 2675

Filed: October 9, 2001

For: **HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM
COMPUTER DEVICES**

U.S. Patent and Trademark Office
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Crystal Plaza Two, Lobby, Room 1B03
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INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed is an Information Disclosure Statement and accompanying Form
PTO/SB/08A for the above-identified patent application.

- ☒ In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- ☐ In accordance with 37 C.F.R. §1.97(c), also enclosed is:
 - ☐ the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
 - ☐ a statement as specified in 37 C.F.R. §1.97(e).
- ☐ In accordance with 37 C.F.R. §1.97(d), a statement as specified in 37 C.F.R. §1.97(e) and the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) are also enclosed.
- ☐ Check No. ___ in the amount of \$___ for the total fee is attached.
- ☒ A return receipt postcard is also enclosed.
- ☐ Please charge \$___ to Deposit Account No. 50-1283 for the total fee. This paper is being submitted in duplicate.

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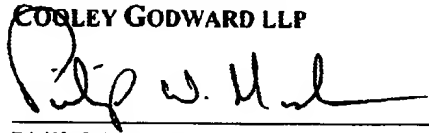
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Dated: June 3, 2004

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Respectfully submitted,
COOLEY GODWARD LLP

By:


Philip W. Marsh
Reg. No. 46,061

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Attorney Docket No. IMMR-003/00US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of **Stephen D. RANK**

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Dated: June 3, 2004

Respectfully submitted,
COOLEY GODWARD LLP

Cooley Godward LLP
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By:

A handwritten signature in black ink, appearing to read "Philip W. Marsh".

Philip W. Marsh
Reg. No. 46,061

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Arlington, VA 22202

**REQUEST FOR CONTINUED EXAMINATION
UNDER 37 C.F.R. §1.114**

Applicants submit this request for continued examination under 37 C.F.R. §1.114 for the above-identified application.

[x] Please consider the following submission(s) required under 37 C.F.R. §1.114:

- ☐ The amendment/reply under 37 C.F.R. §1.116 previously filed on
- ☐ The arguments in the Appeal Brief and/or Reply Brief previously filed on
- ☐ The enclosed amendment/reply submitted in response to the Official Action dated
- ☒ Information Disclosure Statement, Transmittal, PTO/SB/08A
- ☐ Petition for Extension of Time
- ☒ Other: **CD-Rom** containing electronic copies of (43) references.

[x] Also enclosed is:

- ☒ Return receipt postcard
- ☒ Check in the amount of **\$770.00** for the total fee as calculated below.
- ☐ An Assertion of Entitlement to Small Entity Status was submitted previously.
- ☒ Other: Change of Correspondence Address.

☐ The fee for the request for continued examination is calculated below ☐ and in accordance with the enclosed amendment:

06/04/2004 SSESHE1 00000089 09974759

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770.00 OP

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	NO. OF CLAIMS	CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	25	= 28	0	x \$18.00	\$0.00
Independent Claims	7	= 7	0	x \$86.00	\$0.00
Multiple dependent claims not previously presented, add \$290.00					
Total Amendment Fee					
Continued Examination Fee under 37 C.F.R. §1.17(e) of \$770.00					\$770.00
If small entity status is applicable, subtract 50% of Total Amendment Fee and Continued Examination Fee					
Other fees: (specify)					
TOTAL FEE DUE					\$770.00

☒ A check for the total fee is attached.

☐ Please charge \$ to Deposit Account No. 50-1283 for the total fee. This paper is being submitted in duplicate.

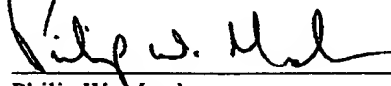
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